

IAF SPACE EXPLORATION SYMPOSIUM (A3)
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DETECTING EXOPLANETS TRANSITS FROM PHOTOMETRIC LIGHTCURVES: DATA
ANALYSIS TRAINING FROM EUROSPACEHUB ACADEMY /VGCC

Abstract

This abstract is about the techniques of mission learning which was learnt in the sessions. First, a time array with 2000 points was created, and it represented time in days by separating x axis into 2000 points. Secondly, an initializing of flux arrays with ones, thus representing stellar flux without any transit was done. Then, each transit center was looped through and created a transit mask. Mission learning was for detecting exoplanets, and training and testing model was required. Transits is a way to detect exoplanet as the planet passing in front of its star dims the light of the star slightly. Therefore, by catching the sudden change in light of the planet showed in the model, it could be used to determine if there was an exoplanet. The data showed by the graph could convey the light received over a period of time. By measuring the depths, we could tell informations about the exoplanet.